		•		_	Docket Number (	9872		Application Number 08/	746,360	
	INFO	RMATION DISCLOSURI (Use several sheets if necess	E CYLADION 2		Applicant(s) Ted Christo	pher				
		(Osc several sheets y necess	JUL 2 4 199	8 (C2)	Filing Date	Herewith	(	Group Art Unit	3305	
				N)				•	3303	-
<del></del>			DATE	I STPAT	ENT DOCUME	NIS		<del></del>	т	
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE		NAME		CLASS	SUBCLASS	FILING DATE  IF APPROPRIATE	
/N/		5,724,976	3/10/98	Mine et	al.					
7/1										
			<u> </u>	FOREIG	N PATENT DO	CUMENTS				
	REF	DOCUMENT NUMBER	DATE		COUNTRY	COUNTRY CLASS			Trans	
					<u> </u>				YES	NO
				<u> </u>						
				OTHER	DOCUMENTS	(Including Au	uthor, Title, I	Date, Pertinent Pa	ges, Etc.)	
	7	Schrope, B. et al. (1992 Ultrasonic Imaging, Vo	) "Simulated Capi	llary Bloc	d Flow Manag	gement Using	A Nonlinea	r Ultrasonic Co	ntrast Age	nt",
/10	-	Ultrasonic imaging, vo	01 14:134-138							
					· · · · · · · · · · · · · · · · · · ·					
EXAMINE	R	In			DATE CONSI	DERED  0-03				
EXAMINE not consider	R: Initi red. In	al if citation considered, whether clude copy of this form with next	or not citation is in communication to a	conforman	ce with MPEP S	Section 609; Dra	w line throu	ugh citation if not	in conform	ance and
	_									

			_		Docket Number (Optional)		Application Number	
٠.	INFO	RMATION DISCLOSURI	E COLETON		9872 Applicant(s)		08/	746,360
•	шиго	(Use several sheets if necess			Ted Christopher			
		/	nct 2 8 1998 ©	<u>)</u>	Filing Date	_	Group Art Unit	
			NCT 2 8 1998 G		November 8,	1996		3305
		\range \r		U.S. PATI	ENT DOCUMENTS	· · · · · · · · · · · · · · · · · · ·		
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	TRANFORM		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
					-			
								,
					<del></del>			,
				<del></del> .				
					<u>.</u>			
				FOREIGN	N PATENT DOCUMENTS	s	<u></u>	
	REF	DOCUMENT NUMBER	DATE	· · · · · · · · · · · · · · · · · · ·	COUNTRY	CLASS	SUBCLASS	Translation
				-			1 2	YES NO
<del></del>	•						2. 00	
						0,	8 C. C. J.	
							200 U	
							72.0	).
				OWLED	A COLUMN TANKS		1 1/2	ত
	<u> </u>	Foshera F (1003) "In	Vivo Application o				Date, Pertinent Pa	
		Fosberg, F. (1993) "In Abstract No. 1047.	vivo rippiication o	Contras	2 Zimaneca Tiai mome	gg , <u></u>	ological Society	or rotting time ieu,
			_ <del></del>					
	!							
EXAMINEI	R	11/2			DATE CONSIDERED			
		11/1			8-10-0	7		
		al if citation considered, whether clude copy of this form with next			e with MPEP Section 609	; Draw line thro	ugh citation if not	in conformance and

• [	t		\$ C		ATTY DOCKET NO.		SERIAL NO.		
, p <sup>*</sup>		DWATION DISCHOOL	CITATION	22	987		08/7	746,360	
	INFO	RMATION DISCLES VICES (Use several pheets if necess	AN E	<b>7</b>	Ted Christopher				
			CITATION SCIENCE SCIEN	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	FLING		GROUP	1205	
		FEB 2 2 100	9 3	OFFICE	November 8, 199	0	<u> </u>	3305	
		13	U.S	S. PATENT	DOCUMENTS			·	
*EXAMINER INITIAL	-	DOCUMENT NUMBER EMANY	DATE		NAME	CLASS	SUBCLASS	FILING DATE	
14	· .	5,034,931	7/23/91	Wells			Q	CHÍ	ED
ĺ		4,714,846	12/22/87	Pesque e	et al.		11	<del>ia 021</del>	999
U U		4,702,258	10/27/87	Nicolas	et al.				<b>***</b>
							Gr	<del>S quo</del>	700
- "									
,									
								•••	
			FORE	IGN PATEN	NT DOCUMENTS				
		DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	TRANSLA YES	NO NO
	<u> </u>	OTHER DOCUMEN	NTS (Includin	g Author,	Title, Date, Pertinent Pa	ages, Etc	:.)	·	
		Ward, B. et al. (1995) "N Ultrasound Scanners," 19	on-Linear Propages	agation Ap gress On Ul	plied To The Improvement trasonics, pgs. 965-968.	Of Latera	l Resolution In N	Aedical	
14					lied to the Improvement of I				
							•		
EXAMINER	?		<del> </del>		DATE CONSIDERED				
		INI	·		8-10-0				
		I if reference considered, whether le copy of this form with next com			ance with MPEP 609; Draw lin	e through o	citation if not in co	nformance a	and not
	_				(PEV/02 Pote		oark Office * II S DED		

Form PTO-A820 (also form PTO-1449)

FORM PTO-1449

LIST OF PATENTS AND PUBLICATION FORMATION DISCLOSURE
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(use several sheets if necessary)

SERIAL NO.

08/746,360

5050/296

FILING DATE
November 8, 1996
3700

APPLICANT(S): Ted Christopher

REFERENCE DESIGNATION **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT CLASS/ **FILING** INITIAŁ **NUMBER DATE** NAME **SUBCLASS** DATE **B**1 5,724,976 3/10/98 Mine et al.

**FOREIGN PATENT DOCUMENTS** 

EXAMINER		DOCUMENT			CLASS/	TRANS	LATION
INITIAL		NUMBER	DATE	COUNTRY	SUBCLASS	YES	NO
	B2	WO 98/20361	5/14/98	PCT			

EXAMINER INITIAL		OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)
M	В3	Schrope, Newhouse, and Uhlendorf, "Simulated Capillary Blood Flow Measurement Using a Nonlinear Ultrasonic Contrast Agent," Ultrasonic Imaging 14, 134-158 (1992).

EXAMINER	11/2-	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

### INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional) 9872		Application Number 08/746,360
Applicant(s) Ted Christopher		
Filing Date		Group Art Unit
November 8, 199	96	3305

#### **U.S. PATENT DOCUMENTS**

KAMINER NITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Ph.	_	5,897,500	04/27/99	Zhao			
		5,846,202	12/08/98	Ramamurthy, et al.			
		5,833,614	11/10/98	Dodd, et al.			
		5,833,613	11/10/98	Averkiou, et al.			
		5,740,128	04/14/98	Hossack, et al.		6 4N	m
		5,577,505	11/26/96	Brock-Fisher, et al.		TENT?	1000 5
		5,396,285	03/07/95	Hedberg, et al.		PADEMAG	K OFFICE
		5,313,948	05/24/94	Murashita, et al.			
		5,111,823	05/12/92	Cohen		ਜ	
		5,034,931	07/23/91	Wells		TECHNCLOG	7 R
V		4,610,255	09/09/86	Shimura, et al.	,	106	EB.
- 1	<u> </u>	<u> </u>	· · ·	FOREIGN PATENT DOCUMENTS		CEF	Z I
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES NO
4		851 241 A2	07/01/98	Europe		3700	
· <u>-</u>							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Averkiou, et al., (1995), "Measurements of harmonic generation in a focused finite-amplitude sound beam", J. Acoust. Soc. Am 98(6), pp. 3439-3442.

Dunn, et al., (1981), "Ultrasonic determination of the nonlinearity parameter B/A for biological media", J. Acoust. Soc. Am. 69(4), pp. 1210-1212.

EXAMINER

DATE CONSIDERED

8-10-03

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

			PE		Docket Number (Optional) 9872		Application Number 08/	746,360		
•	INFO	RMATION DISCLOSUR (Use several sheets if pecess	E CITATION		Applicant(s) Ted Christopher					
		{ :	SEP 3 0 1998 🖔		Filing Date			Group Art Unit		
		P	<u> </u>	<u> </u>	November 8	8, 1996		3305		
			& TRADEMARK OF	U.S. PAT	ENT DOCUMENTS		····•			
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE		NAME	CLASS	CLASS SUBCLASS		DATE OPRIATE	
M,		4,483,345	11/20/84	Miwa						
		4,620,546	11/4/86	Aida et	al.				· · · · ·	
		4,865,042	9/12/89	Umemu	ra et al.					
		5,158,071	10/27/92	Umemu	ra et al.					
V		5,435,311	7/25/95	Umemu	ra et al.					
				ļ						
							_			
									· · ·	
		<u> </u>								
<del></del>			· · · · · · · · · · · · · · · · · · ·	FOREIG	N PATENT DOCUMEN	TS	1	I		
	REF	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	CLASS SUBCLASS	YES YES	lation NO	
•										
					,					
				OTHER	DOCUMENTS (Include	ding Author, Title,	Date, Pertinent Pa	iges, Etc.)	-	
EXAMINE	R	Wh			DATE CONSIDERED					
EXAMINEI not consider	R: Initi red. In	al if citation considered, whether clude copy of this form with nex	or not citation is in t communication to a	conforman			ugh citation if no	t in conform	ance and	

## "SECOND RR FEST UNDER 37 C.F.R. § 1.291(a), filed October 22, 1998"

FORM PTO-1449

LIST OF PATENTS AND PURS CATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(use several sheets if necessary)

Page 1 of 2

SERIAL NO.

08/746,360

FILING DATE
November 8, 1996

3305

APPLICANT(S): Ted Christopher

REFERENCE	DESI	SNATION	U.S. PATE	NT DOCUMENTS		
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
MI	A1	4,865,042	9/12/89	Umemura et al.		177.00
	A2	5,435,311	7/25/95	Umemura et al.		
	A3	4,620,546	11/4/86	Aida et al.		
— <i>y</i>	A4	5,724,976	3/10/98	Mine et al.	•	

### **FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAŁ		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANS YES	LATION NO
41	A5	EP 0 851 241 A2	7/1/98	EPO			
1	A6	WO 98/20361	5/14/98	PCT	·		

EXAMINER INITIAL		OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)
My	A7	U.S. Provisional Patent Application Serial Number 60/032,771 (filed November 26, 1996)
	A8	Experimental investigation of propagation and reflection phenomena in finite amplitude sound beams," Ph.D. dissertation of Michalakis Averkiou, The University of Texas at Austin (May 1994)
	A9	Abstract No. 1047 – "In Vivo Application of Contrast-enhanced Harmonic Imaging," Forsberg et al., Volume 189(P) Supplement to <i>Radiology</i> (November 1993)
	A10	A copy of Acuson's Petition for the Institution of a Public Use Proceeding (filed October 22, 1998)
	A11	"Simulated Capillary Blood Flow Measurement Using a Nonlinear Ultrasonic Contrast Agent," E. 3 hrope, V.L. Newhouse, and V. Uhlendorf, Ultrasonic Imaging 12, 134-158 (1992)
-	A12	Abstract No. 1046 – "Harmonic Contrast-enhanced Doppler as a Method for the Elimination of Clutter: In Vivo Duplex and Color Studies," Burns et al., Volume 189(P) Supplement to <i>Radiology</i> (November 1993)

EXAMINER	of he	DATE CONSIDERED -03	
		***	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Rev. Feb. 97

# "SECOND PRESENT UNDER 37 C.F.R. § 1.291(a), filed October 22, 1998"

Page 2 of 2 SERIAL NO. FORM PTO-1449 CASE NO. 08/746,360 5050/296 **LIST OF PATE PUBLICATIONS FOR FILING DATE GROUP ART UNIT APPLICANT'S INFORMATION DISCLOSURE** November 8, 1996 3305 **STATEMENT** APPLICANT(S): Ted Christopher (use several sheets if necessary)

EXAMINER INITIAL		OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)
MI	A13	Ultramark 9 Ultrasound System Operation Manual; cover page, title page, and page S-3 (November 1988)
V	A14	A copy of the Averkiou Protest (filed October 22, 1998)

EXAMINER		DATE CONSIDERED	-
	Mh	8-10-03	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.